4: Ingrams G-3 (no date) 1935 MM2 Hadhramaut MM2

370

HOUSE BUILDING IN THE HADHRAMAUT

W. H. INGRAMS

342 361 363 DURING a recent tour in the Hadhramaut my wife and I collected some notes on the building of houses. Each town in the country has its own individual characteristics. Although the houses of coastal towns are all of the familiar Arab type, built of stone rubble and whitewashed, there is a wide difference in the aspect of the towns themselves. Makalla, for example, is a miniature edition of Zanzibar—tall houses and narrow streets, sometimes not 6 feet across, while Shihr is a town of lower houses, wide streets, and open spaces.

361 342 353 In the Wadi Do'an the tall mud-built houses climb up the banks of the wadi. They are close packed, but it is in their interiors that they merit attention. The colour scheme is black and white and rusty red. Although there is practically no whitewash on the outside of Do'an houses the interiors of the better-class dwellings are spotlessly white. The ceilings of the rooms, which are lofty, are supported by carved pillars of *'elb* [1] wood, and all interior woodwork is of this material. The doors are set in wide heavily carved frames and the whole ornamented extensively with iron nails, 2 inches across the heads, burnished with lead, which shine like polished dollars. It is a modern development of Do'an houses that every room in the house should be provided with its own ablution room, and as a consequence they are really self-contained flats. The entrance door gives on to a passage into the flat, and there is usually not a door into the main living room but a Moorish arch either in the whitewashed wall or of stained *'elb* wood again studded with burnished nails. The ceiling is held up on rafters of *'elb* wood supported by the pillars previously referred to, the mud floor of the next storey above being laid over slats of date wood very attractively arranged in herring-bone pattern.

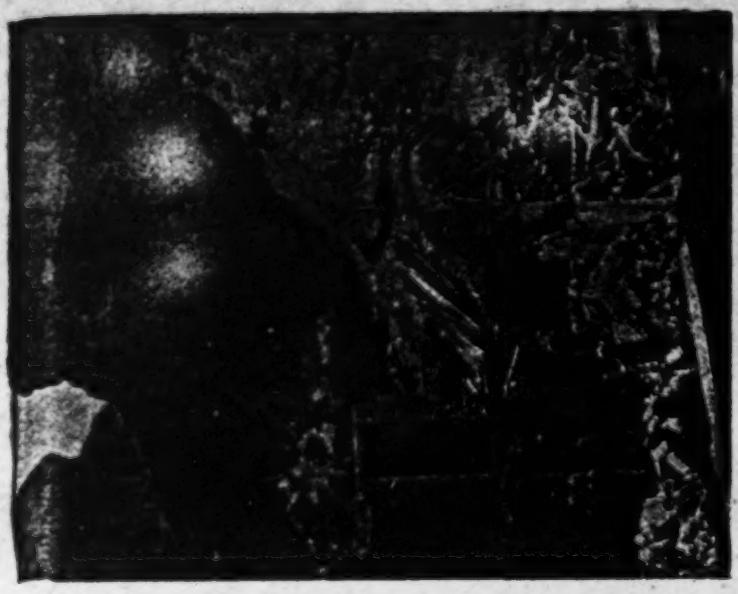
361 342 177 352 492 493 In Terim the principal feature is the large number of enormous dwelling-houses in a style copied from Malaya but built of mud bricks. The exterior of these houses is decorated with blue, green, yellow, and pink, which is not at all unattractive. Interiors are fitted with every up-to-date contrivance, electric light and fans, telephones, ice plants, and modern European conveniences in the bathrooms. Whereas in Do'an and Shibam there is scarcely a chair to be found these houses are replete with European furniture, albeit some of a rather florid style. Living in such houses as these one is struck at every moment with the reflection that there is hardly a thing in the house that has not had to be transported on camel back over the mountains for six days, and while I mention this it is worth recording that there are sixty cars in Terim itself, each of which has been transported in parts by twelve camels from the coast.

313 333 353 The principal structural detail that the wealthy Seyyids of Terim and Seyyun have to contend with in their building operations is the difficulty of getting long enough timber. The *'elb* or *sidr* tree trows to no great height, and although we found *'ariata* trees growing to 50 feet or more in height some days' journey down the Wadi Maseilah, they cannot be transported by

[1] The commoner Arabic name is *sidr*, *Rhamnus nabeca*.

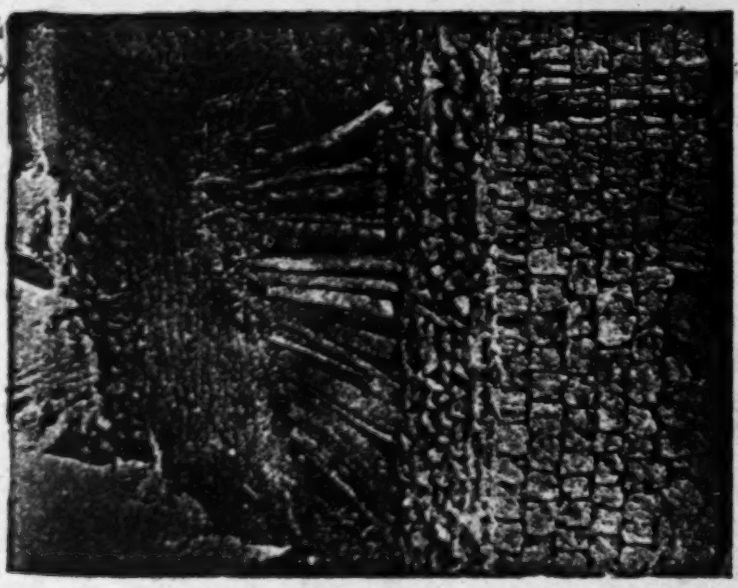
4: Ingrams G-3 (no date) 1935 MM2 Hadhramaut MM2

3421



Later stage in house-building, Do'an

3421
333



Foundations of a house in Do'an, showing blood of the sacrifice

Facing p. 370

313 camels. The difficulty is being got over to some extent by experiments in
333 making reinforced-concrete pillars, of which we saw two in construction at
353 Seyyun. All the work is done by local labour, the travelled Seyyids training their masons. The interior walls of these houses, apart from elaborate decorations such as gold crowns and coloured flowers, consist of a lime plaster polished by smooth pieces of flint till it resembles marble.

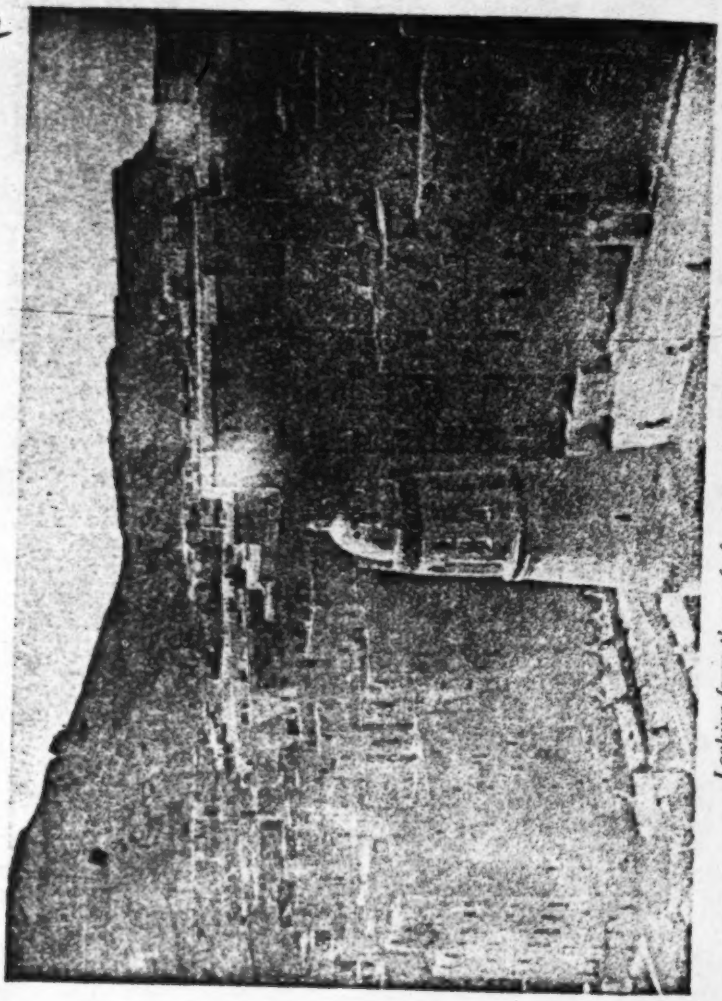
361 Shibam is remarkable for the height of its houses. The town, which is in
342 the shape of a capital D, contains in a small area five hundred houses built on
435 a slight eminence in the wadi. From a short distance the whole town appears
625 to be one enormous brown mud-built construction with a whitewashed top storey and roof. There is no further building room in the town, and the only way to have a new house is to buy an old one, knock it down, and rebuild.
344 The area of land required to build a house 45 *dhirras* in width by 35 in depth (a *dhirra*, or cubit, equals 1·5 foot) will cost 10,000 dollars, and having acquired the land the prospective builder will have to submit the specifications of his house for the approval of a committee of the townspeople who consider the position of windows and of gutters carrying water to the street. Subsequent alterations to a house must also be similarly approved. By general consent houses in Shibam are not now to be built more than six storeys high, in order to avoid overlooking. The only important existing exception to this rule is the Government palace, which is a storey or two higher but which is in such a position that it overlooks very little. On the top of the six storeys the builder may however erect a roofless seventh which gives him a walled-in roof terrace. The building of this house, which, when completed, will be 64 *dhirras* or 96 feet high, will cost more than 20,000 dollars.

333 The foundations are dug 2 *dhirras* deep below the surface of the earth and
342 3 *dhirras* wide. Stones are used for the foundation mortared together with a mixture of wood ash and lime. In places where there is any doubt as to the solidity of the ground on which the house is to stand long pieces of *'elb* wood are laid in pairs lengthwise in the foundations. Wood for this purpose must be cut in the winter; if this is done it is said never to rot. The stone foundation or *sās* is continued for 2 *dhirras* above the level of the ground. When the building operations have reached this stage a foundation sacrifice of a goat or sheep is made on the walls. The house is centred round a solid pillar built on the same foundation as the walls. For a house of the dimensions proposed this pillar or *'arus el beit* will be $3\frac{1}{2}$ by 3 *dhirras* wide and of the same thickness from top to bottom. The stairs of the house invariably go up round the *'arus*. The bricks are made of clay mixed with straw, the standard size being $1\frac{1}{4}$ *dhirras* in length by $\frac{2}{3}$ in breadth by 4 *banan* or fingers' widths in thickness. When the clay of the required consistency and thickness for making the bricks has been laid out they are cut out by a wooden frame which makes two bricks
[435] at a time. The bricks cost five dollars a thousand.

The thickness of the walls of the first storey is $1\frac{7}{8}$ *dhirras*, of the second $1\frac{1}{2}$, of the third $1\frac{1}{4}$, of the fourth 1 *dhirra*, of the fifth $\frac{3}{4}$, of the sixth $\frac{5}{8}$, and of the seventh $\frac{1}{2}$ a *dhirra*. The bricks are mortared together with wet clay. As *'elb* wood grows to no great length the size of the room is determined to some
[435] extent by the length of the pieces available as girders. The girders are usually very short and supported by carved pillars each costing about twenty dollars.

4: Ingrams G-3 (no date) 1935 MM2 Hadhramaut MM2

342



Looking from the roof of a seven-storey house in Shibam.

Facing P. 371

342
361

The ground floor of the house is usually the highest and the others are all about the same. Some of the houses in Shibam are built on the slope of the hill and are therefore provided with cellars. The height of the wall facing the outside of the city in these circumstances is about 70 *dhirras* or 105 feet high. Bigger houses are constructed of two or more houses built together.

The life of a house is said to be two hundred to two hundred and fifty years, but the age it reaches depends on the privies being kept dry and cleaned out regularly. If this is not done the damp saps the lower part of the clay walls and causes splits necessitating demolition. Outside the walls of Shibam in the rich man's suburb of Seheil there are villas, some of them built in East Indian style but none of them as big as those in the city. Several houses in these Hadhramaut towns are provided with most attractive and welcome swimming pools in which the water is usually kept running by means of small petrol engines.

[402]

The general principles of house construction seem to be pretty much the same all over the upper Hadhramaut, but it is really only in the main wadi that elaborate structures are found. Apart from the *dars* in which many of the tribesmen live, it may be interesting to record that in one wadi through which we travelled to the north of the main wadi towards the desert we found troglodyte Badawin living in caves in the walls of the wadi. The front of these caves was usually built up with dry stone walling, leaving only a small gap for the entrance of man and beast. Down the Wadi Maseilah between Qabr Hud and the sea the Manahil and the Mahra live in huts built of sticks not more than 5 feet high. In two villages on the Mahra coast many of the inhabitants lived in tents.